NOTICE OF ALLOWANCE AND FEE(S) DUE

7590   03/18/2010

Burns, Doane, Swecker & Mathis, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

EXAMINER
DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
2437	

DATE MAILED: 03/18/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,817	07/16/2003	Stephen F. Bisbee	003670-104	1237

TITLE OF INVENTION: SYSTEM AND METHOD FOR A REMOTE ACCESS SERVICE ENABLING TRUST AND INTEROPERABILITY WHEN RETRIEVING CERTIFICATE STATUS FROM MULTIPLE CERTIFICATION AUTHORITY REPORTING COMPONENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	06/18/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: <u>Mail</u>

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

7590   03/18/2010

Burns, Doane, Swecker & Mathis, L.L.P.
P.O. Box 1404
Alexandria, VA 22313-1404

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,817	07/16/2003	Stephen F. Bisbee	003670-104	1237

TITLE OF INVENTION: SYSTEM AND METHOD FOR A REMOTE ACCESS SERVICE ENABLING TRUST AND INTEROPERABILITY WHEN RETRIEVING CERTIFICATE STATUS FROM MULTIPLE CERTIFICATION AUTHORITY REPORTING COMPONENTS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$300	$0	$1810	06/18/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
DAVIS, ZACHARY A	2437	713-156000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE   (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.   ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____   Date _____

Typed or printed name _____   Registration No. _____

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,817	07/16/2003	Stephen F. Bisbee	003670-104	1237

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 466 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 466 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

	Application No.	Applicant(s)
Notice of Allowability	10/620,817	BISBEE ET AL.
	Examiner	Art Unit	
	Zachary A. Davis	2437	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment received 02 December 2009*.

2. ☒ The allowed claim(s) is/are *1-11,15-18,34 and 35*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the
            International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF
    INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
        Paper No./Mail Date _____.

    **Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of
    each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the
    attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08),
    Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit
    of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
    Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

/Zachary A Davis/
Primary Examiner, Art Unit 2437

EXAMINER'S AMENDMENT

1.   A response was received on 02 December 2009.   By this response, Claims 1-7,

9-11, 15-18, and 35 have been amended.   No claims have been added or canceled.

Claims 19-33 were previously withdrawn from further consideration as drawn to a

nonelected invention.   Claims 1-11, 15-18, 34, and 35 are currently under consideration

in the present application.

2.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

        Authorization for this examiner's amendment was given in a telephone interview

with Royal Craig on 05 March 2010.

3.   The application has been amended as follows:

IN THE CLAIMS:

Please **CANCEL Claims 19-33**.

Please **REPLACE Claims 1, 3-7, 10, 11, 15, 16, 18, and 35** with the following amended

claims:

1.   A method of providing a Certificate Status Service ("CSS") for checking validities

of certificates issued by respective issuing Certification Authorities ("CAs"), comprising

the steps of:

        receiving ~~one or more certificate~~ status queries <u>for one or more certificates</u> from

requesting entities;

        if the issuing CAs are not found on a CSS's list of approved CAs or the

certificates have expired, returning invalid statuses for those certificates;

        if current certificate statuses are found in a CSS cache memory, returning ~~those~~

<u>the found</u> certificates' statuses;

        if any certificate statuses have not yet been determined, fetching, from a CSS

configuration store, all certificate status reporting methods and communications

information that are needed for retrieving, from the respective issuing CAs, a certificate

status of each certificate whose status has not yet been determined;

        configuring connectors based on the identified information for communicating

with the issuing CAs;

        communicating with the issuing CAs according to the configured connectors;

        retrieving the certificate statuses of all queried certificates;

        processing the certificate statuses according to ~~the appropriate~~ certificate status

reporting methods <u>implemented by the CSS including</u> ~~that may include~~, but [[is]] not

limited to, <u>a real-time certificate status retrieval protocol including LDAP, OCSP, and</u>

<u>any other certificate status retrieval protocol for retrieving certificate statuses in real-</u>

<u>time, and one of</u> Certificate Revocation Lists (CRLs) that are retrieved at specified

publication intervals and Delta Certificate Revocation Lists (ΔCRLs) that are retrieved

upon notification~~, and LDAP, OCSP, and any other certificate status means that retrieve~~

~~certificate statuses in real-time~~;

> recording retrieved certificate statuses in the CSS cache memory; <u>and</u>

> returning the retrieved certificate statuses to the requesting entities;

> wherein the issuing CAs and connector parameters, which enable the CSS to

interwork with any CAs and CA domains even though the CSS and issuing CAs may

operate using dissimilar certificate practices and policies, are designated on a list of

approved CAs in the CSS configuration store.

3.   The method of claim 2, wherein the issuing CA is added to at least one

organization's list of approved CAs by vetting and approving the issuing CA according

to predetermined business rules, wherein the business rules include at least one rule for

reviewing the acceptability of the CA's certificate policy and practices for ~~insuring~~

<u>ensuring</u> the identity of the entity requesting the certificate, and if the issuing CA is

vetted and not approved or later disapproved, the issuing CA is added to the at least

one organization's list of not-approved CAs in the CSS configuration store and/or has

any prior entry removed from the at least one organization's list of approved CAs.

4.   The method of claim 3, wherein vetting and approving the issuing CA include

registering a representation of a trusted certificate of the CA with the CSS and adding,

to the CSS configuration store, at least the certificate status reporting component of the

CA[[;]]₁ the certificate status reporting ~~method~~ component including, but not limited to

CRL, OCSP, or LDAP[[,]]; a time-to-live data element; and communication information

needed to configure a connector.

5.   The method of claim 4, further comprising the steps of:

        checking and updating the CSS cache memory for the queried certificate status,

and if the queried certificate status is found in the CSS cache memory, checking that

the local date and time are within the certificate's validity period and that the time-to-live

data element and use-counter values are within a threshold;

        if any of the validity period, time-to-live data element, or use-counter values are

unacceptable, clearing the CSS cache memory, wherein if the queried certificate status

is not found in the CSS cache memory, the CSS establishes a communication session

with the certificate status reporting component of the issuing CA, composes a certificate

status request using one of the CRL or real-time reporting methods according to the

configured connector, retrieves the queried certificate status from the certificate status

reporting component, closes the communication session with the certificate status

reporting component, and adds at least one of the ~~certificate's~~ certificate identification,

certificate's status, use-counter, and time-to-live data element to the CSS cache

memory.

6.   The method of claim 1, wherein if the certificate status reporting method is

indicated to be a Certificate Revocation List, then, according to a publication schedule

of the issuing CA, ~~wherein~~ the CSS retrieves the CRL from a certificate status reporting

component listed in the CSS configuration store, the CSS clears the CSS cache

memory associated with the issuing CA, and the CSS extracts the certificate statuses of

all certificates from the CRL and stores the <u>extracted</u> certificate statuses in the CSS

cache memory associated with the issuing CA.

7.   The method of claim 1, wherein <u>if</u> the certificate status reporting method is

indicated to be a ΔCRL, ~~wherein~~ <u>then</u> upon notification by the issuing CA that the ΔCRL

is available, the CSS retrieves the ΔCRL from a certificate status reporting component

listed in the CSS configuration store and if the ΔCRL is a full CRL, then the CSS clears

the CSS cache memory associated with the issuing CA, extracts all certificate statuses

from the CRL, and stores the <u>extracted</u> certificate statuses in the CSS cache memory,

and if the ΔCRL contains changes occurring after publication of a full CRL, the CSS

extracts all certificate statuses from the ΔCRL, and stores the <u>extracted</u> certificate

statuses in the CSS cache memory.

10.   The method of claim 1, wherein [[the]] certificates are held in the CSS

configuration store until expiration and information is extracted as needed.

11.   (Currently Amended) The method of claim 1, ~~wherein the~~ <u>further comprising</u>

retrieving ~~of the~~ statuses of the certificates issued by the approved CAs in response to

queries from a trusted third-party repository of information objects to the CSS to validate

the certificate statuses, further comprising ~~comprises~~ the steps of:

locating and reporting the <u>requested</u> certificate statuses if the certificate statuses

are present and current in the CSS cache memory;

if the certificate statuses are not present in the CSS cache memory, performing

the steps of:

obtaining the communications information, certificate status types, and

retrieval methods from the CSS configuration store;

if the certificate status type is CRL, and the CRL in the CSS cache

memory is current, and the certificate statuses are not found in the CSS cache memory,

then reporting the certificate statuses as valid; and

if the certificate status type is CRL, the CRL is not current or found in the

CSS cache memory, and local time is greater than a next scheduled publication time for

the CRL, or if the certificate status type is not CRL,

creating connectors and composing certificate status requests

according to the <u>respective</u> certificate status type;

establishing communication sessions with the certificate status

reporting components of the issuing CAs;

retrieving the certificate statuses from the certificate status

reporting components using the obtained retrieval methods and ending the

communication sessions;

interpreting the retrieved certificate statuses;

associating, with the interpreted retrieved certificate statuses, time-to-live values representing periods specified by the respective CSS policy policies for the certificate status types;

adding at least one of the ~~certificate's~~ <u>certificate</u> identification, <u>the interpreted retrieved</u> certificate status and time-to-live values to the CSS cache memory; and

reporting the <u>interpreted retrieved</u> certificate statuses to the trusted third-party repository of information objects.

15.   The method of claim 1, ~~for providing certificate status reports for certificates issued by the approved CAs~~ further comprising:

reporting valid certificate statuses when the certificate status type is CRL, the CRL is current, and the certificate statuses are not found in the CSS cache memory;

reporting the certificate statuses when the certificate statuses are found in the CSS cache memory and the time-to-live and use-counter values have not exceeded respective thresholds; otherwise,

if either the time-to-live or use-counter values have exceeded respective thresholds, clearing the certificate statuses from the CSS cache memory;

if the certificate statuses have not been reported in a previous step, then requesting and retrieving the certificate statuses using the certificate status ~~type~~ <u>reporting method</u> indicated in the CSS configuration store;

when the status type is CRL, retrieving and parsing the new CRL at a next indicated publication time;

when the certificate status type is at least one of the type LDAP, OSCP, and any other real-time certificate status reporting protocol, retrieving and parsing the certificate status;

adding at least one of the ~~certificate's~~ certificate identification, certificate status, time-to-live and use-counter values to the CSS cache memory; and

reporting the retrieved certificate statuses to the requesting entity.

16.   The method of claim 15, wherein a certificate status use-counter data element is added to the CSS's certificate status cache, wherein the certificate status use-counter data element is incremented or decremented every time the certificate's status is checked, and if the certificate status use-counter value exceeds a respective threshold, then the certificate status is reported and the CSS cache memory is cleared with respect to the certificate status.

18.   The method of claim 17, wherein when a request is made to the CSS to retrieve a certificate status of a new certificate and the CSS cache memory has reached an allocated memory size limit, the CSS searches the CSS cache memory for every certificate status entry where the current time exceeds the time-to-live value for every certificate status entry where the value of the use-counter data element exceeds the threshold and the value of the at least one certificate status entry with the oldest last-

accessed value, wherein the CSS then clears the respective CSS cache memory

entries, retrieves the requested certificate status, places the <u>retrieved</u> certificate status

in the CSS cache memory, and reports the ~~requested~~ <u>retrieved</u> certificate status to the

requesting entity.

35.   The method of claim 1, wherein [[any]] <u>the</u> CSS can query ~~any other~~ <u>a second</u>

CSS for the certificate status if ~~that other~~ <u>the second</u> CSS is designated in the CSS

configuration store as an approved certificate status reporting component for the issuing

CA.

Allowable Subject Matter

4.   Claims 1-11, 15-18, 34, and 35 are allowed.

5.   This application is in condition for allowance except for the presence of claims

19-33 directed to an invention non-elected without traverse. Accordingly, claims 19-33

have been cancelled, as noted above.

6.   The following is an examiner's statement of reasons for allowance:

        Independent Claim 1 is directed to a method that provides a certificate status

service that includes receiving queries for the status of one or more certificates;

returning an invalid status for certificates having an issuing CA that is not found on a list

of approved CAs; returning current certificate statuses if those are found in a cache

memory; and, if certificate statuses need to be determined, fetching, from a

configuration store, status reporting methods and communication information needed

for retrieving certificate status from the respective issuing CA; configuring connectors

and communicating with the CA based on the communication information; retrieving and

processing the certificate statuses of the queried certificates, where the CSS includes

both real time certificate status retrieval protocols and CRL or delta CRL protocols;

caching the retrieved statuses; and returning the retrieved statuses to the requesting

entities. The closest cited prior art, Koehler and Barrett, generally disclose a similar

method of caching retrieved certificate statuses that includes checking an issuing CA

against a list of approved CAs, providing certificate status if it is found in the cache, and

if status is not found in the cache, fetching information needed for retrieving the status

from a respective issuing CA, configuring connectors and communicating with the

issuing CA, retrieving and processing certificate status according to a CRL, caching the

retrieved status, and returning the retrieved status to the requesting entities. Additional

cited prior art discloses caching certificate statuses retrieved and processed according

to real-time certificate status retrieval protocols. However, none of the cited art, alone

or in combination, teaches or suggests the use of both a real-time certificate status

retrieval protocol and the use of CRLs in an interoperating manner as claimed, in

combination with the other cited limitations. In general, the cited prior art that discusses

both CRLs and real-time protocols only discloses them as alternatives and does not

appear to disclose the two types of protocols in use together in an interoperating

manner as claimed.

Any comments considered necessary by applicant must be submitted no later

than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on

Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Zachary A. Davis whose telephone number is (571)272-

3870. The examiner can normally be reached on weekdays 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary A Davis/
Primary Examiner, Art Unit 2437